

RESPONSE

As stated in the Order by The Board, “we require Appellants to address the foregoing matters ‘considered to be of assistance in reaching a reasoned decision on the pending appeal’ 37 C.F.R. § 41.50(d)” (page 5, line 4-6) and “we require Appellants to explain why we should again address the same line of arguments in this case: since the same arguments were considered and thoroughly addressed in Appeal No. 2004-1732, why would the previous panel’s treatment of those arguments not be dispositive here?” (page 4, lines 18-21). As directed by the Order, Appellants confine their response to those matters that differentiate the present Appeal from that of Appeal No. 2004-1732, decided on September 24, 2004 (Application No. 09/714,882). Applicants respectfully note that, while it is true that Appeal No. 2004-1732 has been abandoned, it was abandoned in lieu of a continuation application which is being pursued, in order to enter additional facts that favor Applicants position into the case.

Appellants respectfully invite the Board to consider that the Appeal Brief in the present case describes a credible, specific, substantial, and well-established utility that has a different fact pattern and supporting evidence, and thus were not specifically briefed, in Appeal No. 2004-1732. The details of these arguments will not be reiterated here, but rather they will simply be summarized.

First, it is clear that the structure (for example: the seven transmembrane domains) and function of G protein-coupled receptors is and was readily recognized by those of skill in the art at the time this application was filed. Second, Appellants have submitted contemporaneous evidence of the recognized value of G-protein coupled receptors as drug targets (Gurrath, 2001, Curr. Med. Chem. 8:1605-1648: previously presented as **Exhibit C**). Third, Appellants have also submitted evidence, contemporary to the filing date of the present application, that indicates that at the time this application was filed those of skill in the art recognized the sequences of the present invention as encoding variants of the G protein-coupled receptor MRGX2, a G protein-coupled receptor that is expressed in sensory neurons that function to detect painful stimuli as described in a scientific publication by Dong, *et al.*, Cell 106:619-32, 2001, abstract previously provided as **Exhibit B**). Sequence comparisons were also provided (GenBank accession number: NP_473371 alignment and GenBank report provided in **Exhibit A**) that clearly establish the identity of the sequences of the present invention as encoding MRGX2, the fact that Appellants did not presage the name of that others would assign to this protein does not indicate that they did not recognize its utility or value.

Therefore, clearly the provided evidence supports Appellants' assertions that the sequences of the present invention encode variants of a G protein-coupled receptor MRGX2 receptor. G protein-coupled receptors have a well established utility that is recognized by those of skill in the art. Thus this situation parallels Example 10 of the PTO's Revised Interim Utility Guidelines Training Materials (pages 53-55), which establishes that a rejection under 35 U.S.C. § 101 as allegedly lacking a patentable utility and under 35 U.S.C. § 112, first paragraph as allegedly unusable by the skilled artisan due to the alleged lack of patentable utility, is not proper when there is no reason to doubt the asserted utility of a full length sequence (such as the presently claimed sequence) that has a similarity to a protein having a known function. In the Analysis portion of Example 10 it states that "Based on applicant's disclosure and the results of the PTO search, there is no reason to doubt the assertion that SEQ ID NO:2 encodes a DNA ligase. Further DNA ligases have a well-established use in the molecular biology art based on this class of proteins ability to ligate DNA.Note that if there is a well-established utility already associated with the claimed invention, the utility need not be asserted in the specification as filed..... Thus the conclusion reached from this analysis is that a 35 U.S.C. § 101 and a 35 U.S.C. § 112 first paragraph, utility rejection should not be made."

Furthermore, Examiners frequently cite *Brenner v Manson*, 383 U.S. 519, 148 USPQ 689 (Sup. Ct. 1966), noting that "a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion." Appellants whole heartedly agree and note that the search for the sequences that encode the human G protein-coupled receptor known as MRGX2 is over. Applicants were the first to have successfully concluded that search for the presently claimed novel human G protein-coupled receptor sequences and the results of this search have been clearly listed in the Sequence Listing of the instant application. No further "hunting" is required. As Appellants have brought this search to its successful conclusion, they request no more than their due the reward, a U.S. Patent claiming the novel sequences that they were the first to identify as the result of their difficult, but successful efforts.

Therefore, given that Appellants have provided several forms of scientific evidence which are contemporary to the filing of the present application and which indicate clearly that those of skill in the art would have recognized identity and specific utility of the sequences of the present invention and the Examiner has provided no evidence to the contrary and that the present case parallels Example 10 of the PTO's Revised Interim Utility Guidelines Training Materials, Appellants have described a utility in full compliance with the provisions of 35 U.S.C. section 101, and the Examiner's rejection should be

overturned.

Therefore, given that the facts and evidence supporting utility as set forth by Appellants in the present Appeal Brief and this Response, were not addressed by the previous merits panel in Appeal No. 2004-1732, Appellants respectfully request the Board address all the facts as set forth by Appellants in the Appeal Brief in the present case, and to overrule the rejections of claims 1-7 under 35 U.S.C. § 101 and 35 U.S.C. § 112, first paragraph.

Respectfully submitted,

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Date



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